No. IV. This, like its predecessors, originated also in the Northwest, crossing Lake Superior on the 20th, and advancing southeastwardly, reached New Jersey on the 23d. Meanwhile, another high pressure.

No. V, was approaching the Middle States from the Province of Quebec. This latter area took a peculiar course; first, southeast, from Quebec to Nova Scotia; second, from Nova Scotia, in a nearly southwest direction, across the Middle Atlantic States and Tennessee to Mississippi and Louisiana; thence a due eastward path towards southern Georgia, making the entire tour at a nearly uniform rate of progress, in six days, (*i. e.*, from 22d to the 28th.) The pressures were highest in Canada, and, as the area moved southward, they gradually decreased, until they became imperceptible off the Florida coast on the 28th. The high pressure was felt on the Atlantic coast in long continued northeasterly winds and in the heavy swell of the ocean.

No. VI followed, the severest of all the October storms, (that marked IX,) and ushered in the extensive rain-areas and snow-areas in the Northwest and Lake region, and also the low temperatures and heavy frosts, which finally extended to the Gulf of Mexico. The pressures were very high in this anti-cyclone, and the winds accompanying it were also high in the Lake region. Its line of progression was from the Northwest to the lower Mississippi valley Its effects were felt after the month of October closed, although it was quickly succeeded in the Northwest by falling barometer. The frosts which followed it, however, extended over the whole country east of the Rocky Mountains and to the neighborhood of Mobile and Pensacola, Florida.

ATMOSPHERIC TEMPERATURE.

The thermal changes of October, with one or two exceptions, were neither severe nor sudden. The southward deflection of the low thermometer isotherms commenced in the Northwest and Upper Lake region, and proceeded first down the Missouri and Mississippi valleys, and thence eastwardly over the Appalachian Belt and the Atlantic States. The extreme ranges of temperature were at Bismarck, D. T., from 83° to 6°; at Breckenridge, from 76° to 10°; at Cheyenne, from 80° to 11°; at Colorado Springs, from 76° to 20°; at Fort Gibson, I. T., from 87° to 24°; at Indianapolis, from 78° to 28°; at Knoxville, from 80° to 30°; at Leavenworth, from 89° to 21°; at Omaha, from 78° to 18°; at North Platte, from 82° to 14°; at St. Louis, 83° to 30°.

The temperature was everywhere, except in the South Atlantic States, above the normal or usual height. (See Table Map No. II.)

PRECIPITATION.

This item is graphically represented on Map No. III; the table printed thereon shows the areas of deficiency or excess, as compared with the normal precipitation, deduced from the observations of other years. The map shows a general deficiency over the entire country. The only excess, and that very small, is over the Upper Lakes.

RELATIVE HUMIDITY.

The connection between this condition and the precipitation, will be seen by comparing the rain-chart data with the following means of humidity: New England, 72.6; Middle States, 68.1; South Atlantic States, 70.2; Eastern Gulf States, 71.0; Western Gulf States, 66.0; Lower Lakes, 69.00; Upper Lakes, 74.1; Ohio valley and Tennessee, 64.1; Lower Missouri valley, 63; Upper Mississippi valley, 67, and Minnesota, 70.7.